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No. 3.

CONTRIBUTED ARTICLES

The "Golden" Section-Honey Cleaner.

BY J. A. GOLDEN.

I herewith present a picture of the greatest labor-saving piece of machinery for bee-keepers that has ever been shown to the fraternity. Every man, woman and child that knows anything about preparing section honey in first-class style for the markets, knows that scraping sections is a tedious kind of work, or at least that is my version of the matter; and when I got ready to dress my crop of nice, white clover honey of 1897, it really made me tired to think about it. I wasn't able to hire, and of course I was feeling pretty badly about having all that unpleasant work to do. When I retired I couldn't sleep, and as I was tossing about, my good wife wanted to know if I were sick, or whether I had the fidgets. I said I had the fidgets, I guess, and the result of that wakeful night brought to light a section-cleaner—just what you see in the picture.

Having an old sewing-machine table, I nailed some boards together and cut out a wheel, which is 36 inches in circumference, and has a 4-inch face. I attach it on the old table, covered the face of this wheel with medium-fine sand-paper, by gluing it on, and arranging a cover so that the face of the wheel protruded from 1/16 to 1/8 inch, as shown by the picture, where Flora is in the act of passing a section over the wheel. (Just as I was ready to take the view, Flora turned her head and said, "Tell Mr. York that I am just pretending to clean this section"—when I toucht the button and caught her and her smile.)

It will be observed that there is plenty of room for a full super of sections to be placed on the table at a time.

Now as to how the machine works. Well, it was just fun to clean sections with it, and so clean and bright that no one could tell by looking at them afterwards, that they ever had propolis on them, excepting at the scallops, which have to be scraped out. But if the plain, no-bee-way section is used, a knife will never be brought into use, as the machine does it all, and very speedily.

There isn't a bee-keeper in the world who likes nice, clean section honey, that after seeing this machine and its work, but would make or procure one. As I am generous to bee-keepers, I here publicly present to them the right to use, and also how to construct it. If there is any bee-keeper in America, or any other country, that after dressing a half dozen sections of honey isn't in love with the machine and its work, let him "arise" like Mr. Doolittle's old man, and explain the objections.

I had intended to send a picture and explanation of this device last summer, but having quite a serious time in a financial way, caused by dishonest persons (but thanks to my bees, every dollar has been canceled), the matter was forgotten until I received the December Review, where I was surprised to see that L. A. Aspinwall, of Michigan, had invented nearly the same arrangement.

In conclusion let me add: Bread and table knives, pen-

knives, scissors, or any small edge tools, can be quickly ground on this wheel the same as an emery wheel, so our women-folks will now have no excuse for not having sharp knives, as any one who can run a sewing-machine can run this section-cleaner.

Morgan Co., Ohio, Jan. 5.



The Expenses of Bee-Culture—Does it Pay?

BY C. P. DADANT.

Does bee-keeping pay? This is a question which is often on the lips of a beginner, and on which many an old bee-keeper is ready to take the negative. But this is not to surprise any one, for there are plenty of farmers who are ready to



The Golden Section Cleaner.

tell you wheat-growing doesn't pay, and who still continue to grow wheat.

I propose, in this article, to show that bee-culture, if properly managed, does pay, even at the low prices of honey. We are producers of extracted honey almost exclusively, and as extracted honey is now as low in price as it ever was, if we

can make it pay now we ought to be satisfied that it will pay at any time.

The expenses of an outfit for bee-keeping, when running for extracted honey, are about as follows, figuring upon an apiary of 80 colonies, which is about the number that is best suited to all sorts of locations, and is probably the limit of numbers that an efficient man can properly examine and attend in a day's labor at each visit:

80 colonies of bees in large extracting hives.....	\$400 00
160 supers with combs for same, two to each hive.....	160 00
Extractor, pane, funnels, smokers, veils, etc.....	20 00
Empty hives (20).....	20 00
Total	\$600 00

The labor we give to this number of colonies, when running for extracted honey, is about as follows:

	Days.
In February, examination to see that all is well.....	1/2
March, ditto, cleaning out dead colonies, feeding needy ones.....	1
April, taking out packing, examining queenless colonies.....	1
May, removing drone-combs, transferring small patches, looking up young queens, feeding, giving room to strong colonies.....	2
June, putting on supers, making a few artificial swarms.....	3
July, removing supers, extracting honey, returning supers.....	4
August, one examination for all purposes.....	1
September, equalizing, removing supers, extracting honey.....	3
October, removing empty supers, helping weak colonies, feeding needy ones.....	2
November, putting into winter quarters.....	2
Total	19 1/2

A total of 19 1/2 days. This is the outlay in labor. Figuring it at \$2.00 per day, the labor amounts to.....\$39 00
Interest on the capital, at 7 per cent..... 42 00
Annual sinking fund to replace hives as they grow old.. 20 00

Total expenses

The average crop of honey extracted one year with another is with us about 50 pounds per colony. Most practical apiarists put it at a much larger figure, even with comb honey, having better locations, but ours is probably a fair one. So we may count on an annual crop for the 80 colonies of 4,000 pounds of honey. Figuring this at 5 cents per pound, we have \$200, or about double the amount of the actual expenses for the year. If you have done the work yourself it will figure the wages for work necessitated at about \$7.00 per day, all expenses paid. I figure nothing for help needed when extracting, because I do not figure any profit from the beeswax. We have always found that the beeswax produced by extracting, which amounts to over one pound per hundred pounds of honey, more than pays for the help needed, and is in proportion to this help.

As a matter of course, there are seasons when there is next to no surplus honey, and in such seasons less help and less labor is needed. But there are also seasons when the crop is much greater, and in such years the additional beeswax, harvested from the cappings, more than makes up for all the extra labor. In the best honey season we ever had, which was in 1889, if my recollection is right, we had 600 pounds of beeswax from the cappings of something like 48,000 pounds of honey. This at 25 cents per pound made a snug little sum, and we know it not only covered our extracting labor, but also paid for the odds and ends.

When figuring up the labor, we gave the actual time employed by us in work of this sort. Much more time may be spent on the bees, and profitably too, for they usually repay their owner for the attention given them. There are plenty of bee-keepers, "died in the wool," who spend a great deal more of their time in the apiary than is absolutely necessary. These are the true ones, the "fast colors," "warranted to wear," who would keep bees in Greenland if they went there to live. But I do not know that we should take all of their time into account; for their labor is its own reward.

I know an old bee-keeper, a good friend of mine, who after he has put his bees into the cellar for winter, goes to see how they are every morning after he gets up. If he reads this article he will probably recognize himself, and perhaps many of our readers will think it is of themselves I speak. I askt him once, when I accompanied him with a little lamp in his silent visit, whether he did not think that this daily visit was rather injurious than otherwise, as it was likely to disturb the bees more or less. He evaded my question.

In keeping bees in the way above mentioned, if they are properly managed, the summer increase should make up for winter losses. It does with us, usually. The number of colonies should not vary more than 20, say from 75 to 95. If they become less numerous a little more time and expense should be put upon them till they have regained their loss.

If they become more numerous they may be equalized with other apiaries less fortunate.

Readers who are unaccustomed to bee-culture may think that this is only theory, but it is bona-fide practice. We have carried on this method for 25 years or more, with from 8 to 6 apiaries, and the wages figured in this article are the wages we have paid for this kind of work for 15 or 18 years past.

Hancock Co., Ill.



The Use of Shallow Extracting-Frames, Etc.

BY EDWIN BEVINS.

In reply to Mr. Tyrrell's question (see page 732, for 1897) as to why I prefer to use frames 6 inches deep for extracting, I will say that in the production of extracted honey I prefer to use a hive of greater capacity than the 8-frame or even the 10-frame Langstroth. I use some of the Dadant hives, which are 21 inches long and 12 1/4 inches deep, outside measure, and take 10 frames.

I now make for my own use a modified Dadant hive, 20 inches long and 12 inches deep, to take 10 frames. This change was made because these hives take the same length of top-bar and bottom-bar as the Langstroth or dovetailed hive. Every supply dealer handles these, and any supply manufacturer will cut the end-bars of the proper length at a trifling additional cost. Besides, if one wants to use these hives for comb honey, they will take the same sized super as the 10-frame Langstroth.

It is impracticable to tier up hives of this capacity. The frames are too large for convenience in extracting, and putting on another hive gives too much additional room at one time. Hence, I use a super taking 10 frames six inches deep. These frames are much nicer to handle than the Langstroth frame, and of course much nicer than any frame of a larger size than the Langstroth.

When using the 8-frame Langstroth hive for extracted honey it is almost, or quite, a necessity to use bee-zinc, and if bee-zinc is used the 8-frame hive does not give the queen sufficient breeding-room. This is true of most of the queens in my yard. How it may be with those in Mr. Tyrrell's I am unable to say. If his queens are of only 8-frame Langstroth hive capacity he had better turn his attention to their improvement.

With brood-chambers the size I have given, the queen so seldom goes above that bee-zinc is not needed. Some claim that bees will work just as well with the zinc as without it, but I have not found it so.

On the subject of the production of all extracted honey it is not worth while to make any further remarks. It was not expected that those already made would influence anybody's actions.

Yes, Mr. Tyrrell, if you kick those 8-frame hives when full of bees and honey, better kick them very carefully. Valor is not half so commendable as discretion in a case like this.

Decatur Co., Iowa.



Marketing Honey—Influence of Early Reports.

BY C. DAVENPORT.

During the last few years great progress has been made in the science of producing honey; few if any other branches of agriculture have kept pace with us, but in one most important respect—the marketing of our product—we are not much farther advanced than were the bee-keepers of 50 or even 100 years ago; and altho of late our product is secured in a much more convenient and attractive form, which requires more labor and expense to the producer, the price has in the last few years steadily declined until at present it does not much, if any, exceed the cost of production, at least to those in the Northern and Middle States. Numerous reasons have been advanced as to the cause or reason of this steady decline in price, such as overproduction, under-consumption, adulteration, increase production, cheaper prices of fruit, etc. Now, in my opinion (and also in the opinion of all the bee-keepers with whom I have discussed the matter) many bee-keepers themselves have unintentionally done a great deal towards lowering the price of late, by reporting large, or very large, expected crops. I think all will admit that the actual crop, as a whole, has been greatly overestimated and exaggerated the last two years.

If I am right, all the large buyers and dealers in honey take one or more bee-papers, and while it is not likely that they read them as closely as a bee-keeper does, they look them over closely enough, no doubt, to see what the crop is ex-

pected to be, and when they see reports of such bright prospects, and accounts of immense yields coming in, or expected, they naturally decide that the actual crop will be very large, and hesitate to buy unless at a very low price, or if they receive shipments on commission they feel that it will be best for the shipper if they sell as soon as possible, even at a low price, for they may not, and probably do not, know much about the great uncertainty of a honey crop.

Of course, bee-keepers themselves know that no matter how bright or favorable the prospects are, there is no certainty of the crop until it is actually secured, and, with comb honey, I might say until it has been taken off the hives and graded, for sometimes it may happen that there will be a fair crop stored in the hives in sections nearly ready to come off, when the flow may suddenly cease, and a large part of the sections may be partly or wholly unsealed; or in some cases the honey may be sealed and off the hives, and upon coming to grade it part of the crop may be unsalable on account of bee-bread in the sections. Such instances have occurred with me, and no doubt with thousands of others.

The past season a man wanted to buy one of my yards, with the bees, hives, supers, honey and all, complete. As it was in the best part of the white clover flow, this yard was being run for comb honey, and an experienced bee-keeper who has handled bees the best part of his life, and myself, spent half a day in looking over the yard and estimating the amount of honey we thought was actually on the hives. His estimate was 2,500 pounds; mine, 2,100. The sale was not made at that time, and owing to a sudden cessation of the flow, and bee-bread, there was only about 1,300 pounds of salable honey, and but little of this would grade even No. 1.

Now, another thing that dealers and buyers do not know when forming their estimate of the crop from the reports sent to the bee-papers, is the fact that some of these reports are from beginners who have not had experience enough to form any correct estimate of the crop, or even the prospects of one; or some of the most favorable estimates may come in from old, experienced bee-keepers who have but a small number of colonies, and overlook the fact that some seasons 20, or even 40 or 50, colonies may secure a fair crop, when a yard or range fully stocked in the same, or a locality fully as favorable, may secure but a small crop, or none at all.

To show that I have reason to believe that some beginners are not able to form a correct estimate of even the prospects, I will relate an incident that took place here last spring. A young man living but a few miles from me, who knew nothing about bees, bought 15 colonies, and expected in the course of time to make his fortune, or at least a good deal of money out of them, for the man from whom he bought the bees helped him to figure out how he could increase them to over a thousand colonies in a few years, if he wisht, when the revenue from so many, even if but a small amount per colony, would be considerable.

He came down to see me a number of times, and was very enthusiastic about his bees and the prospects. He used to look over my bee-papers, and intended to subscribe for all the bee-papers himself, as soon as he sold some honey; and as some of these papers had a good deal to say about dishonest commission men, and developing the home market, he decided not only to sell his crop in the home market, but to sell at once for fall delivery, the large crop of comb honey—1,500 pounds at least—which he felt sure to get; and actually did travel over a large extent of territory in the spring, taking orders for fall delivery, at 8 cents per pound for white honey, clover or basswood—"customer's choice"—and 7 and 6 cents for amber and dark, with special prices on 100 pounds or more.

Now, last spring was one of the most unfavorable for bees that I have ever known; there were hard frosts every few nights, until the night of June 1, when we had our last severe one, and altho the bees were pretty strong in stores the previous fall, I had to feed nearly 2,000 pounds to the colonies in the home yard.

On one of his visits I askt this young man if his bees had enough stores. He said they had plenty, for the man he bought them from told him that each colony had enough to last it until June, even if they were unable to gather any until then. But, besides, he said that they were bringing in more honey, almost every day, than they could use, in fact some days, for awhile, they were bringing it in so fast that he had to enlarge the entrance to some hives in order to let them in and out fast enough, and he had put on some supers, altho no work had been done in them as yet.

His visits suddenly ceased, and I did not see him again for some time, but when I did he informed me that his bees had all died but one colony.

As some may not believe that these reports in the bee-

papers, such as I have described, do influence buyers and dealers, I will in my next, among other things, show how they actually do.



The Amalgamation of the Two Unions.

BY WM. MUTH-RASMUSSEN.

You are entirely correct, Mr. Editor, when you, in your foot-note on page 807 (1897), say that I "meant that nobody had recently brought up the amalgamation subject previous to the Buffalo convention, in the bee-papers." In my article on page 759 (1897), I used the expression, "as nobody has brought the subject up." If I had had any reference to what was done at the convention, I should have written, "as nobody brought the subject up." I wonder that Mr. Newman failed to see the difference which the word "has" gives to my meaning, and to what he implies.

Since the question of amalgamation was first brought up, Mr. Newman has, it seems to me, shown an entirely unnecessary touchiness on this subject, and he appears to regard all who favor amalgamation as enemies of the National Bee-Keepers' Union. If Mr. Newman should take his son out of a primary school and place him in a graded school for the purpose of a better education; or if he should interest himself in having the primary school elevated into a graded school, would he then regard himself as an enemy of the primary school?

As a matter of fact, I did not know what was done at the Buffalo convention in regard to amalgamation, until I saw (in the Bee Journal received by last mail) the printed report, containing Mr. Newman's communication to the convention, and also his reply to my article on page 759. Mr. Newman uses, unfortunately, in both of those articles, as well as on a number of previous occasions, such offensive language that it must necessarily detract from the respect which otherwise would be accorded him on account of his various official positions and his administrative ability. I admire the spirit of dignity and forbearance with which the convention past by Mr. Newman's communication without comment or discussion.

I do not think that anybody seriously questions Mr. Newman's integrity or honesty of purpose, and his zeal for the welfare of the old Union is certainly commendable. But he should consider that many others are as honest and intelligent as himself. He may be a better lawyer than those who framed the constitution of the new Union, and he may be correct in his criticism of its defects; but he lacks the spirit of progress, which overlooks unimportant technicalities, and, irrespective of old usages, "goes ahead," doing "the greatest good to the greatest number."

I agree with you, Mr. Editor, in the concluding sentence of your foot-note on page 807. If amalgamation is not consummated, the members will gradually leave the old Union and join the new one. But this will mean a gradual decrease in the funds, until there will not be enough left for any practical purpose. In view of this contingency would it not be better, as contemplated, to transfer the funds to the new Union, while they amount to a respectable figure, and keep them up to a certain standard, such as I proposed? Mr. Secor is probably as capable as Mr. Newman to handle the funds to the best advantage, and if they, as I proposed, are only used for defence, and are even, through a large membership, kept up to a certain standard, deemed sufficient for the purpose—while in the old Union they must have been fluctuating—I fail to see what objection anybody can have to the change.

In proposing the sum of \$500 as the standard defense fund, I did not mean to restrict the fund to that figure. I simply considered it as the lowest amount that would make a respectable showing. If the directors in their wisdom should deem it advisable to make the standard higher, I, for one, shall raise no objection.

Inyo Co., Calif., Dec. 30, 1897.



No. 3—Recollections of an Old Bee-Keeper.

BY DR. E. GALLUP.

(Continued from page 20.)

My next bee-keeping was in Fond du Lac county, Wis., in a prairie country, and away from the basswood, willows, etc. There was a basswood grove three miles west of me, at Fairwater. As soon as I was settled I began to look around for bees. I found a man west of me that had five colonies in large box-hives, that had never swarmed, and he had never

taken any honey from them. By doing an immense amount of talking, I persuaded him to let me have the bees for half the honey and half the increase. I took them home, cut the hives down to about the right size to suit me, and returned him about 150 pounds of honey in a very few days. I kept them two years, got a good start, and returned him 10 colonies, and I do not remember the amount of honey.

In the meantime I had found some wild bees. The first swarm I found when I was hunting for my cows, about three miles from home, and in my shirt sleeves. I had just found the cows, and came across a fair-sized swarm clustered on a bush. I never could think of leaving a swarm of bees, so off came my shirt. I fastened up the neck by tying up the sleeves, cut off the bush, and put the bees, bush and all into the shirt, gathered up the flaps, carried them home across lots, as the country was new and not fenced. Then we had a season that the bees clustered out and did not swarm or produce any honey.

The following season I heard of a Hollander, by the name of Wellhausen, that made bees swarm at will. He made swarms at 25 cents each. A neighbor had three colonies, and said he was going to get the old "gent" to come and "swarm them" for him. So I made arrangements for the neighbor to be sure and have him come over and make some swarms for me. I also paid the neighbor for a day's work to come over and interpret, as Mr. W. could not talk English intelligently. So I wormed what information I could out of him before he commenced operations. This Mr. W. held out the idea to his neighbors that no one else but he could do what he did, as he possessed the power to enchant the bees, etc.

He smoked the bees at the entrance, from his tobacco pipe, then turned the hive bottom up, inverted a half-bushel measure over the mouth of the hive, wrapt a sheet around the hive and measure, so the bees could not get outside, and began rapping on the sides of the hive, and in the meantime kept time with his rapping with a peculiar kind of chant (of course to charm the bees!). After about 20 minutes he untied the sheet, raised up the half-bushel, and behold there was a good, fair-sized swarm of bees in it! He then set it open side out, at about an angle of 45°, set the old hive back on its stand, and began to explain through the interpreter that they were thoroughly enchanted, that he would live them and set them wherever I wanted them, and they would go to work exactly like a natural swarm.

He then took a long-handled spoon and began poking over the bees, and soon found the queen, or "king," as he called her, and after about 30 minutes he violently shook them up and poured them into a hive, as one would so much wheat. He gradually and slowly turned over the hive, and set it where I wanted it. Of course, I watch every motion with wide open eyes, and perhaps gaping mouth.

He then commenced on another colony, and in the meantime I had sent one of the children to a near neighbor's and procured another half-bushel, prepared a roll of rags and set fire to one end, and went to work on another colony, and had it done and the queen found before the old gent got through with his, and he was quite angry. He made his old tobacco-black teeth snap good at the interpreter. Then turned around to me, and said, "Ghanky man no good. Don't believe in de witches."

Well, I paid his price for making the two colonies, and offered him more, but he refused it with scorn. That lesson made a great advance in my bee-knowledge. He explained through the interpreter how the old colony replaced their queen, etc. He lived in the adjoining township, and I met him at different times. I obtained much important information from his methods, and experimented somewhat with his hives, made in the form of a sugar-loaf, out of willows woven basket fashion and plastered inside and out with green cow-manure, and dried in the sun. He made 108 colonies in two seasons from one, and wintered them successfully on the summer stands. Of course, I might have told you that he drummed out the bees, found the queen, and then hived them, but I am telling you just how I had to learn.

Orange Co., Calif.

(Continued next week.)



Langstroth on the Honey-Bee, revised by The Dadants, is a standard, reliable and thoroughly complete work on bee-culture. It contains 520 pages, and is bound elegantly. Every reader of the American Bee Journal should have a copy of this book, as it answers hundreds of questions that arise about bees. We mail it for \$1.25, or club it with the Bee Journal for a year—both together for only \$2.00.

CONVENTION PROCEEDINGS

Report of the Northwestern Bee-Keepers' Convention, Held in Chicago, Nov. 10 and 11, 1897.

REPORTED BY A SPECIAL BEE JOURNAL REPORTER.

(Continued from page 21.)

FIRST DAY—AFTERNOON SESSION.

The afternoon session was opened at 1:30 p. m., and Pres. Miller read the following question:

BENEFIT OF DRONES ASIDE FROM MATING.

"What is the benefit of the drone, aside from mating?"

Pres. Miller—How many think that the drone has any other use?

Dr. Besse—I have always been a rather close observer, and I think that drones are of a good deal of use in keeping up the warmth of the hive to the right temperature; and they let that many more workers go out to gather honey. I have noticed that where there are plenty of drones you get more honey frequently than where there are no drones, other things being equal.

Mr. Thompson—It seems to me, if you keep as few drones as possible, that there can't be enough to do much good in the way of warmth. I can't see any use in that direction.

Dr. Besse—I think in certain times of the year it is very well to have a good many drones in the hive.

Mr. Thompson—What time of the year?

Mr. Besse—When they are working, gathering honey, and putting it away.

CONDITIONS DETERMINING THE LIFE OF BEES.

"What conditions determine the life of the honey-bee?"

Mr. Besse—I think they will live longer when there isn't much to do than they do when they are working hard.

Mr. Whitcomb—If we were to ask the average bee-keeper what the average life of the honey-bee is, he would say about 40 days, and that would be correct, in the main. But my own observation has been that the life of the honey-bee is not gauged by years, months and days. We find in Northern Russia, where honey is produced away up—well, up into Siberia—that the honey-bee must remain in the hive there at least 8 or 9 months—not less than 5 or 6, at the least calculation—and the condition of the life of the honey-bee is gauged entirely by the amount of work that it has done, the stages of life it has past through. If they can be kept from the conditions of work, their age does not count until they have past through them.

Mr. Baxter—I think more bees are killed by accident than by old age; and that is why I believe that in the winter time a bee will live much longer than in the summer time. Take it when they are hard at work, every bee that can be out in the field, etc., the average life is very short—probably 20 or 30 days would be a big average. I do not believe that bees die in the winter time of old age, but that it is from poor wintering, poor packing. They very likely starve to death with their honey in the hive. I have seen that, time and again. And why? Simply because they were not packed properly. The moisture remained in the hive. It condensed, and became a sheet of ice over the comb. They were not examined right away, but after the weather became warm, the sheet of ice thawed away, and the man that found them found five or six pounds of dead bees in the hive, and he jumped to the conclusion that they died of old age. I am satisfied that is the case nine times out of ten.

Mr. Baxter—In reply to that, I will say that the bees that have worn wings are not the only ones that work.

USING FULL CELL-DEPTH STARTERS.

"Is it best to use full-length cell-starters, in brood-frames and for comb honey?"

A somewhat rambling discussion ensued as to what was meant by this question, and incidentally there was shown a confusion of understanding as to the terms "Weed process" and "drawn foundation," some insisting that the two terms meant the same thing. Secretary York then explained the difference.

Mr. York—The Weed process applies only to the sheeting of the wax. That is all. And that wax is sheeted the same, whether it is put into a shallow-wall foundation or a deep-wall foundation. The old process, or the new Weed process, is really the process of a year or two ago, and the later foundation is only the drawn foundation or deep-cell foundation. They are both Weed foundation. You might as well drop those terms. It is all Weed process. But the drawn foundation has the deep cells, deeper than the ordinary foundation. That is all the difference.

Mr. Moore explained that he had put in the question, and that drawn foundation was what he referred to.

Mr. Cooley said he would the next day bring in samples of sections of honey built upon drawn foundation, so it was decided to postpone discussion of the question till the samples were present.

USE OF FOUNDATION IN SECTIONS AND FRAMES.

"Is it best to use full sheets of foundation in brood-frames and in sections?"

Mr. Heffron—I would say, from my experience and observation, use full sheets, if they are convenient, but have them fastened so that there is no sagging, and use them only as a center, simply to guide the bees.

Mr. Green—I think we might consider it the universal practice of bee-keepers to use full sheets; and if anybody thinks differently, let us hear arguments against it.

Pres. Miller—I very much doubt whether the majority of bee-keepers use full sheets in sections. How many present use full sheets of foundation in sections? [Ten signified affirmatively.] How many use starters, or less than full sheets, in sections? [Ten signified affirmatively.]

Mr. Stone—I decided to use just little strips, because I had heard so many people say that comb honey was manufactured, and just as soon as they began to find out that the comb foundation was manufactured then they took it for granted that comb honey was manufactured. If they find there is simply a little strip put in the top of the section, or a little in the top and bottom, too, they won't object like they would if there was a full sheet.

Mr. Green—I have used both starters and full sheets, altho for several years I have used nothing but full sheets, because I think under all circumstances I can get more honey, fuller sections of smoother honey, and consequently a larger crop of nicer honey. If you have a small strip in the top the consumer can tell it; if not, nine times out of ten he can't detect it.

Mr. Thompson—The public has been used a good while now to foundation. I don't see how you are going to stop it.

Mr. Baxter—My experience has been that it always pays to have full sheets, invariably, in the brood-chamber. If you use a full sheet the sections when finished are well sealed all around the edge, in shape, and there is little danger of breaking them; while when you use only starters the bottom very often is not fastened well. As far as the objection by the public is concerned, I think that wouldn't hold good. Either you have to do away with it altogether or you may just as well use full sheets, because you must be able to tell them there is nothing artificial in that section. If you tell them there is just simply a starter you might as well tell them a full sheet. The question of using full sheets, in the quantity of honey produced, and the way it is finished up, I think will counter-balance all other considerations, even the cost, if it were five times as much as you pay now.

USING UNFINISHED SECTIONS OF PREVIOUS YEAR.

"How many have produced first-class honey in sections that had been partly filled with honey the year before?"

Dr. Besse—I have produced it that way, considerable last year. The great objection is that it gives it too dark a shade—don't get it so white.

Mr. Green—That is not first-class, then.

Dr. Besse—By shaving it down pretty thin, if it is built late in the fall, or partly drawn out, it will make very fair honey, but I have never succeeded in getting first-class honey from the previous year's drawing.

Mr. Green—Sometimes the honey will be inferior because this old comb is hard and dirty, and the bees don't seem to clean it properly. Moreover, this hard comb is worse than the worst foundation you ever saw; and besides this, the honey that is stored in these cells and then taken out just as soon as sold, very often is not properly ripened, and, after standing awhile, that part filled with drawn comb will very often, after it has stood awhile, be very much worse in appearance than the other. The honey will ooze out of it, and if the honey is stored in any moist place it will show in those

cells almost every time, and that part of the honey will be decidedly inferior.

Pres. Miller—How many have produced first-class honey under the circumstances stated in the question. [Two answered affirmatively.]

Mr. Heffron—The appearance will be against it.

Mr. Wheeler—I think the trouble comes in when the sections are unfinished; we are apt to leave them in the fall, and the bees are apt to deposit their glue over the section. It is my impression if the section is taken off just as soon as the bees stop work, and put on when they commence the next season, you can't tell the difference; but I am not certain.

Pres. Miller—That honey left in there becomes candied honey, and that acts as a yeast upon any honey put into that section afterwards. I am inclined to think this: If when the white honey harvest stops you take off every section promptly, and then allow the bees to have full access to those sections, to rob them out, they will make a clean job of it, and those sections will be just as good as if you gave them foundation the next year. I don't say I know that. As to leveling them down, I don't agree with my good friend, the editor of *Gleanings*, about that. He says it must be leveled down to at least $\frac{3}{4}$ of an inch. For the purpose of getting them clean on the edges, that is valuable. If they are clean and good, I don't see any reason why a cell $\frac{3}{4}$ of an inch deep is not just as good as one $\frac{1}{2}$ of an inch deep. If it is a good thing to have a cell $\frac{1}{2}$ of an inch deep, I think it is better to have it three times that deep, providing the cell and the comb are as good.

Mr. Baxter—I will say that I used, this year, foundation for two-pound sections that was cut into sizes for the sections, in 1889, by my wife, and I used them in connection with fresh foundation this summer, and I couldn't see the least difference. I could see some difference on the fastening it in the section, tho. The old foundation was a little harder. It took more heat to get it to stick.

DRONE-COMB IN SECTIONS.

"Have you any objection to drone-comb in the sections?"

Mr. Baxter—No objection at all in the sections, but in the brood-chamber I say I invariably use full sheets of foundation.

Mr. Green—I would object to drone-comb in the sections because honey stored in drone-comb has not nearly so nice an appearance. The consumer may not be able to tell why, but he knows it doesn't look as nice, and he doesn't buy it as readily.

Mr. Thompson—Drone-comb looks very coarse in sections.

Pres. Miller—Did you ever know drone-cells to be kept empty in sections for some time, when the worker-cells in the same section were filled with honey, Mr. Green?

Mr. Green—Yes, sir.

Pres. Miller—That is a serious objection to drone-comb in sections. It will not apply, probably, if there is a large amount of drone-comb in the brood-frames, but we generally limit the amount of drone-comb in the chambers, and you have that condition.

Dr. Besse—I have noticed that.

GETTING UNFINISHED SECTIONS CLEANED OUT.

Pres. Miller—How can we get the sections cleaned out without having the combs torn?

Mr. Thompson—Put them out-doors.

Dr. Besse—I used to do that a good deal, and the bees would clean them out.

Pres. Miller—And they will tear them all to pieces.

Dr. Besse—No, put out enough of them, and put them out late in the evening. If you uncapped them thoroughly they will clean them up. I never had the bees tear them down.

Pres. Miller—I have.

Mr. Baxter—Yes, and they will clean every living person off the plantation.

Mr. Baldridge—I would extract the honey from the sections, and put them under instead of over the hive. I would sprinkle them with an atomizer before I did so, and the bees would remove every particle of honey from them.

Mr. Stone—One point has not been touched upon that has bothered me some. I have taken the sections off the hives, and when the bees were done working, and just taken them off in the cases, and set them in the honey-house; and sometimes in the spring of the year I have kept them just as dry as I could, and as warm as I could, and in the spring of the year I would find that some of those sections that were partly filled, the honey would be sour in them, or a little tainted, and the bees don't like to accept it, and if they do they don't make a good grade of honey. I have got to refusing them entirely, and I don't put in anything except what is fresh foundation, and where they are just partly filled that way I have just extracted them of late years. And the past summer I

have tried a little extracting. I would like to know whether it is practicable with any one else. I don't see many objections to it. I take the sections that are partly filled, and cut them out and put them into my wax-extractor, and extract both honey and wax at the same time. You get them both in the same vessel, and the wax is on top, and easily separated from the honey, and you have an article of honey that I don't think has deteriorated at all. I can't see any difference between that and what is extracted with the honey-extractor. As far as the comb foundation is concerned, Mr. Dadant puts little slips of paper between his sheets of wax, saying, "This foundation will not deteriorate in years, or will keep for years, if kept from the sun and dust," or "from the heat and dust." I think that is not a question that needs to be settled.

Dr. Besse—I would say that I never have had any torn sections, and I have had hundreds of them. I save them all and store them, and put them all out that I have, some afternoon—when they have been all extracted that I can extract—and I put that into the bee-cellar—a place where my honey is never sour, but it doesn't dry out. Set them out two or three hours before sundown, and the bees will clean them out as nice as a pin, and never tear a section.

Pres. Miller—Will you tell us how many supers or sections you put out?

Dr. Besse—Perhaps a hundred or two hundred supers.

Pres. Miller—How many colonies of bees?

Dr. Besse—For a hundred colonies.

Pres. Miller—Then you are all right. You have B. Taylor's plan, and that works all right. But if you put out one super that will be a different thing. They will tear it all to pieces.

(To be continued.)

QUESTIONS AND ANSWERS

CONDUCTED BY

DR. C. C. MILLER, MARENGO, ILL.

[Questions may be mailed to the Bee Journal, or to Dr. Miller direct.]

Hive for Comb Honey and Wintering.

1. I have my bees all in box-hives. Wishing to transfer them into new hives, what is the best hive for comb honey?
2. I winter my bees on the summer stands. Is a 10-frame Danzenbaker hive big enough to winter bees successfully?

NEW YORK.

ANSWERS.—1. It isn't so much the hive as it is the management and the man. The plain, simple Langstroth hive is perhaps as good as any, and I would have it in its latest form, the dovetailed.

2. That depends somewhat on the size of the colony. Possibly it may be large enough for any colony, but I should be full as well satisfied with two stories. The trouble is that with only one story, if there's a big lot of brood late in the season, there may not be room in the hive for all the honey a very strong colony ought to have. But if you make sure that honey enough is present there ought to be no trouble with one story.

Managing Double Brood-Chamber Hives.

See on page 794 (1897) in answering Washington's questions, and also Penn's, you advise using two 8-frame brood-chambers for one hive. I wish you would tell us how you manage your bees. As I understand it, you removed one hive when you put on the supers. How many supers did you put on at the time you removed the hive? and what do you do with the frames in the hive you removed?

You said if you wintered your bees on the summer stands, you would use two stories. Would you put most of the honey in the upper story?

I suppose I ought to tell you how the seasons are here. In the spring the bees get honey from fruit-bloom, vine maple and willow. From the last they get more pollen than honey. We have a good deal of wet weather, sometimes in fruit-bloom, so they don't get very much honey from that. Then about the middle of June or first of July white clover commences, and lasts from four to six weeks. Last summer there was no honey in the white clover to speak of, so the bees did not store any more than enough to winter on. In this part of the coun-

try we do not have any fall flow, not enough to keep up breeding, which is the worst feature in keeping bees here. Last winter I lost half of my bees on that account. The white clover stopt all of a sudden and the bees stopt breeding. Those that I lost had plenty of honey, and the others I had to feed came out all right in the spring. That goes to show that we must have plenty of young bees as well as honey to winter well.

WASHINGTON.

ANSWER.—Only one super is put on a hive at first, and the second one is put under it when the first is a third, half or two-thirds filled, depending upon circumstances.

When it comes time to put on supers, there usually isn't a great deal but empty combs in the lower hive, and a pile of empty combs can be left at one end of the apiary till needed, keeping watch that worms don't monopolize them. If a colony has more brood than will go in one story, it is given to a less fortunate neighbor, and if there's an overplus after putting eight frames of brood in each hive, it's piled up on one of the weaker colonies to be drawn from when needed.

Yes, if I wintered two stories outdoors I'd leave the honey mostly in the upper story, just where the bees themselves will probably have left it.

Wintering Bees in a Damp Root-House.

1. Will bees winter safely in a root-house where drops of water hang overhead, altho the hives are perfectly dry?
2. Would it be all right to have a slow fire to dry the water out?

WISCONSIN.

ANSWERS.—Reports have been given of success in such a place, and yours may also be successful. Still, I think I'd just as soon do without having any drops overhead.

2. Yes, providing it does not run the temperature above 45° or 50°, and no light shines from the fire. Of course no smoke must be allowed to get to the bees.

Sound of Bees in the Cellar.

Are the bees all right if I can hear them buzzing every time I go into the cellar?

MINNESOTA.

If you hear the bees you may be sure they're alive, but if they make much noise it's not so good as to have them very quiet. A colony that is wintering in the best condition will be so still that you will have to put your ear close to the hive to hear any noise. By spells, however, it will rouse up for a little time and be more noisy, as if the bees were turning over in bed. When a cellar is full of bees, some say they should be perfectly quiet, but I have never found mine so. If I hear a soft, low murmur on entering the cellar, I feel satisfied. If the thermometer gets down below about 45°, they become more noisy, and they become more noisy if it goes above that. Perhaps in your cellar and with your thermometer, 45° may not be the point of greatest quiet, but if you watch closely you will find some point not far from that at which they are most quiet, and you should try to keep the temperature at that point.

A Winter Bee-Repository.

I have not a very good cellar, in my judgment, for bees, so I have put up a building from rough boards, the outside space of 15 inches filled with sawdust, then another wall of 4-inch boards and paper on both sides, leaving an air space of 2 inches all around, except the floor, which I packed with sawdust 6 or 8 inches next to the ground, then boards and paper, and boards again. The ceiling is made the same as the four walls, except a ventilator 5x6 inches, which is covered by the roof. There are two doors on the south side. Eight inches from the floor I have placed two planks, 2x6, and 4 inches apart, all around the room, where I put the first hives on, about 4 or 5 inches apart, with the bottom-boards off, and then tier up three hives high. Do you think they are all right?

WISCONSIN.

ANSWER.—I don't know. I'm afraid not. The walls are constructed to act as non-conductors, and a very cold spell would have little immediate effect on the bees, for the temperature inside would change very slowly. But you must remember that the temperature will change just as slowly if the outside weather becomes warmer. If the average temperature should keep above 35° or 40°, continuing thus for two or three months, the bees would not feel the occasional spurts of low temperature sending the mercury down below zero. But

suppose the average for two or three months should be not more than 10° above zero, then the bees would stay at that mark or a little above it, without any benefit from a chance day with the thermometer up to 50°, which a colony has that stands outdoors. The larger number of colonies in the building the warmer they will be, but there again comes the danger that the air will not be so pure as with a smaller number. You will be doing a service to others if you report next spring how the bees come through. If you find the temperature stands below 40° or 45°, perhaps you could put in a little stove with a fire of hard coal.

Queen Laying in December in Indiana.

Is it a common thing for a queen to lay at this time of the year? I have one that is laying, or at least she was Dec. 20. Along in October I introduced a yellow queen to a black colony of bees, but did not expect any increase so late; but late in November, one fine day, the bees were flying, and I thought I saw a yellow bee go into the hive, so I opened it, and to my surprise there were young bees from eggs up to flying bees. So Dec. 20 the sun came out nice and warm, and I had to have another peep. I lifted out three frames, and they had patches of brood as large as a man's hand, with eggs and larvae. I thought perhaps it was not a common thing, in a Middle State like this, for bees to breed so late in the season.

INDIANA.

ANSWER.—Bees often have eggs in the hive in winter weather, say in February, when the queen begins leaving for the coming season, but your case is very unusual, in December. One reason for it is that there had probably been a cessation of laying before the introduction of the new queen, but even then it was a very unusual occurrence.

Queen that Stopt Laying in August.

I had a young queen in a nucleus, and after she mated and began laying I clipped her wing, using the Monette device. After two weeks I looked over the hive and found that she stopt laying, as there were no eggs nor brood of any kind.

1. What was the trouble with that queen, that she stopt laying the middle of August?
2. Could the clipping have frightened her so as to stop her laying?
3. Do you think she would lay next season if she is successfully wintered?
4. What would be the best to do with a queen like that?

WISCONSIN.

ANSWERS.—1. I don't know. It is just possible that she was all right, but there's hardly one chance in a million that she was, if I am right in supposing that you clipped her within a few days after she began laying, and then two weeks later no eggs nor brood were present. It almost seems, however, that there must be a mistake somewhere, for if there were brood and eggs, or even eggs only in the hive, what became of them in two weeks?

2. I don't think it could.

3. I doubt it.

4. As a matter of curiosity it might be a good thing to keep her for a time to see what she would do, but a queen that would stop laying in the middle of August when she hadn't laid two weeks in her whole life ought not to be encouraged to live.

Wintering Bees in a Barn, and on Candied Honey.

1. I have bees in a barn, with the entrance on the side of the barn, the hives covered with blankets and hay. They have been in the barn all summer, the same I suppose as the bees of your questioner on page 803 (1897), as he says "If bees are in a barn," implying that they were not put there for the purpose of wintering. Now are not these bees in nearly the same condition for wintering that bees are when well packed in chaff hives outside? If not, why not?

1. In September I had some bees short of stores, and I fed them some extracted clover honey. The honey was all right, but now seems to have candied nearly solid. Will the bees be likely to winter on this kind of stores?

CONN.

ANSWERS.—1. I am exceedingly obliged to you for calling my attention to that reply on page 803. Those questions on page 803 were answered just after returning from Buffalo (where they should have been answered), and it is evident that

in my hurry I lost sight of the fact that there were entrances in the side of the barn. That's not sufficient excuse for such carelessness in answering, I'm only explaining how it happened.

The 40 colonies referred to in the answer were put into the barn and packed there without any entrance at all. With the entrance it's an entirely different thing, and you are right in thinking that they are much the same as being in a chaff hive, the main difference being that more packing is around them.

2. I don't know for sure just how it will be, but perhaps they'll come through all right if they have a sufficient quantity of stores. You will probably find that they will waste a good deal, throwing out the solid grains of candied honey.

Exhibiting Bees in a Store.

There is a store here called "The Bee-Hive," and it is doing a bee-hive business. This summer I let them have my observatory hive to put in their show window. They were well pleased with it, as it attracted a great deal of attention, and secured free advertising in the papers. Now they want to know whether I could put a full hive in the window, and let the bees fly out. I told them I didn't know as such a thing could be done. For I was afraid the bees would buzz themselves to death on the window. I told them the bee-keepers have a Solomon out West that would answer all such questions. If it can be done, please say in what way.

NEW YORK.

ANSWER.—Solomon hardly lives in this region, but any bee-keeper who has tried it will tell you that you are right in suspecting that the bees will buzz themselves to death against the windows if they are allowed to come out of the hive in the store. Besides that, they would be very annoying by flying about the store. The best you can do, it will be rather hard on a colony of bees to have one or more sides of the hive covered with glass, but you may be able to have one last through the season by giving it an outside entrance, and by keeping the hive darkened when no one is inspecting the bees. A heavy black curtain might hang over the glass, to be held up while the bees were on view, then dropt down when no one was looking at them. The passage from the hive out through a hole in the wall would have to be boarded up in such way that no bee could get out of the hive into the store, altho having free passage to the open air. It might be easy to accomplish this, and it might not be easy. If the entrance of the hive opened out on the sidewalk it wouldn't do at all. It would have to open out at some part of the building where the bees going out and in would not disturb any passers-by.

Bees Clustering Up Against the Cushion—Markings of Drones.

1. I put my bees into winter quarters Nov. 17, if I remember rightly, and they are all right, but what puzzles me is that they have clustered up against the cushion. They are in one room of the barn, where they were last winter. The cushion is of ground cork in burlap sacks in empty supers. They all cluster the same. Four of the hives are dovetail, one is 15x15, and 18 inches high. The other one is the same except 12 inches high. All have plenty to winter on. What I am afraid of is that it might get cold and remain so, and they starve. Or can they work down to food, as well as up, with breaking cluster? It gets pretty cold in there. I have small sticks to let them pass over the frames.

2. I sent to a queen-dealer in this State for two tested queens. They were of the 3-banded strain. Those queens hatch nice workers and young queens, but the drones were what I called hybrids. Some of them were almost as black as the old stock, but not as small.

IOWA.

ANSWERS.—1. It isn't so very easy to understand just what the situation is. But from what you say I rather understand that there is an open space in some way between the brood-frames and the cushions, and that the bees are clustering in the empty space. Part of the cluster no doubt extends down to the combs and the bees will keep up connection with the base of supplies. But it is not a good thing to have very much space over the brood-combs, and the first day it is warm enough it might be a good plan to crowd the cushions down into the space.

2. If the worker and queen progeny are all right you needn't pay much attention to the drones. They vary very much, and I have yet to see anyone give the marks whereby a pure Italian drone can be determined.

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United States Bee-Keepers' Union.

Organized to advance the pursuit of Apiculture; to promote the interests of bee-keepers; to protect its members; to prevent the adulteration of honey; and to prosecute the dishonest honey-commission men.

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EUGENE SECOR, Forest City, Iowa.

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Order Bee-Supplies in Time.—Yes, you are right, we were about to offer the annual advice regarding the purchase of supplies early—in ample time for the honey season. Judging from the reports we have read from some of the factories, it looks as if there might be an unusually early rush this year. We shouldn't wonder if last season most bee-keepers had a chance to use up all the supplies they had left over from previous poor seasons, and the coming season they will have to lay in another supply. This will make a larger business this year than even that of last year, which was considered almost phenomenal by the manufacturers of apiarian supplies.

The wise bee-keeper will always have on hand, in advance of the season, nearly all the supplies that will likely be needed. Don't get caught without having at least the necessary goods on hand when the time comes to use them.

The New Union's Membership is growing steadily. Almost daily we are receiving and forwarding the dues of new members to the Treasurer and Manager, Hon. Eugene Secor, of Forest City, Iowa. We hope the increase may continue right along, until there shall be a membership of at least 1,000. All who prefer to do so, can send their dues (\$1.00) when writing to us, and we will continue to forward them to Mr. Secor, as we are now doing. The membership now must be about 350. Why not make it 1,000 by the next annual meeting, which will doubtless be held in

Omaha—or Cincinnati(?). It would mean a good deal if the United States Bee-Keepers' Union had a membership of 1,000. It would then be the largest organization of bee-keepers ever known on this continent. Are you a member? If not, you'd better join at once, and lend your aid in carrying out the important objects of the new Union.

The Mich. Apiarian Experiment Station, the Superintendent of which, Mr. John M. Rankin, reports in the American Bee-Keeper, is by no means idle. Among other things they have been at work to increase the length of the tongues of bees, and during the past season made an increase of two-tenths of a millimeter in the length of tongue of one strain by means of crossing. Experiments are also being made in the way of mating queens to desirable drones.

Sweet Clover is both illustrated and clearly described by Harriet Mason, of Lorain Co., Ohio, in the Ohio Farmer of Jan. 6. The writer shows that she knows sweet clover all right, and says, "As a weed it is not troublesome." Of course it is not hard to destroy, if one only knows how. The illustration given is a very fine one, and Ohio farmers would do well to teach their larger stock to eat. The bees know already how good it is as a nectar-yielder.

Honey as Food—our 24-page pamphlet gotten up for general distribution among consumers of honey—is being liberally quoted from by the public press. The Chicago Record—that magnificent daily newspaper—lately printed a half column taken from it. As the Record's circulation is more than 200,000, several people probably learned something about honey. We hope our readers will see to it that the editors of their local papers are invited to copy from "Honey as Food." It's brief, correct, and interesting to all.

The Vermont Bee-Keepers' Convention—the 23rd annual meeting—will be held at the Van Ness House, in Burlington, Jan. 26 and 27. Railroad rate, two cents per mile each way. Of course, every bee-keeper is invited to be present. It will afford a good opportunity to visit the State Experiment Station and Farm. A portion of the printed program reads as follows:

Comparative Value of the Italian and Black Races of Bees—A. E. Manum.

Spring Management of Bees—J. E. Crane.

The Bees and the Flowers—Prof. L. R. Jones.

Report of Work Done by the Experiment Station Apiary During the Past Year—Cassius R. Peck.

Would it Be Practical for Vermont Bee-Keepers to Organize a Bee-Keepers' Exchange—J. E. Crane and O. J. Lowrey.

Song—M. A. Everest.

Can an Out-Apiary Run for Comb Honey be Made Profitable With No One to Hive Swarms? If So, How to Manage It?—W. G. Larrabee.

Shall We Adopt the New No-bee-way Section and Fence in Place of Our Present Section and Separator?—H. L. Leonard.

Recitation—Albert M. Cram.

For a copy of the full program, and further particulars, address the Secretary, H. L. Leonard, Brandon, Vt.

The Chicago Honey Market Again.—Last week we had something to say regarding the prices of honey in this market. Since then the Chicago Record (one of the great dailies here) gave a write-up on the honey-business as it appeared Monday, Jan. 10, on South Water street—the great farm-produce street of this city. Here is what the Record's reporter had to say:

Honey's lack of activity is material for considerable speculation among South Water street dealers nowadays. This is a season of the year when the product of the bees is

supposed to be in its glory, and to be enjoying all kinds of prosperity. Its comparative sluggishness is attributed by some to bunions, by some to rheumatism, but by most to an inconsiderate, unappreciative people. It is a well-known fact that honey came to Chicago this season with great expectations tucked away among its comb and other chattels. Upon the passing of the autumn the sweet thing associated very much with buttered toast and other representatives of the bread brigade, but as time wore on a chilliness sprung up between them, and now the affiliations are far from brotherly. There is a hope among the dealers that when the next spell of cold weather drifts along, honey will retrieve some of its lost popularity.

Fancy, high-colored white clover honey, tipping the beam at a pound, is sold these days to retailers at a dime a pound, and imperfect off-color stock is marked at a shade less. Buckwheat honey, resembling a Malay in color, lounges around with a 7-cent tag around its neck, and alfalfa stock, from the rolling plains of Colorado, pegs along at 8 cents per pound. Extracted honey, amber to dark, is as slow at a nickel a pound as time is when a night train is being waited for.

In connection with the foregoing there appeared a section of comb honey as a poor, sick man's head, with a crutch under one of his arms, and a bottle of some tonic for "that tired feeling" which he seemed to be enduring just then. Also one of his feet was bound up, and, all in all, the old gentleman, whom they called "W. Clover Honey," appeared to be in pretty bad shape.

We attribute the lack of a general demand for honey here just now, to two causes, viz.: The very warm and unseasonable weather, and the great quantities of adulterated liquid honey (or glucose) being put upon the market by the unscrupulous wholesale grocers. Much of it is unfit for a dog to eat, and when people once get a taste of such stuff, it simply kills their desire for any kind of honey, and they are slow to buy again.

Complete Volumes of 1897.—We have on hand about 40 complete volumes of the American Bee Journal for 1897, which we will mail to any one upon receipt of 60 cents. We also have about the same number of the first six months' copies of 1897, which we will mail for 30 cents. As there were 832 pages of the Bee Journal last year, here is a chance for our new subscribers to get a good deal of valuable reading-matter for a very little money. Better order at once, before they are all gone.



MR. W. L. COGGSHALL, of New York State, with his two sons, a part of one of his many apiaries, and his elegant home, are all shown in Gleanings for Jan. 1. Everything indicates general prosperity and comfort. Good for W. L.

MR. J. F. MCINTYRE, of Ventura Co., Calif., writing us Jan. 3, said:

"We are having a dry year so far. The grass has dried up, and prospects are poor for a honey crop next season."

Dr. G. L. TINKER, of Tuscarawas Co., Ohio—once a prominent apiarian writer, manufacturer, etc.—recently visited the A. I. Root Co., and afterward wrote up his trip, which appears in Gleanings for Jan. 1. It's a deserved boom for the Rootvillians.

THE BRITISH BEE JOURNAL completed its 25th year with its last issue of 1897. So did Gleanings, we believe, for if we mistake not they both were started in 1873. We congratulate them. The American Bee Journal is just 12 years their senior, having been established in 1861. The three bee-papers named are the oldest printed in the English language. There

may be older ones in Germany, and there may not. We do not know. In this country the next to Gleanings in age is the Review, which completed its 10th year with 1897.

MR. WM. RUSSELL, of Hennepin Co., Minn., writing us Jan. 11, said:

"I congratulate you on the improved appearance of the Bee Journal for 1898. If I could only remember one-half of the good things it contains, I would make fewer mistakes."

MR. GEO. SPITLER, of Crawford Co., Pa., wrote us Dec. 31, 1897, as follows:

"We are now having a week of the first winter weather. We have good sleighing, but the mercury has not gone below 12° above zero. Bees are hibernating (?)."

MR. W. J. FOREHAND, of Lowndes Co., Ala., wrote us Jan. 10:

"This is an ideal location for the purpose of queen-rearing, which is almost a constant honey-flow. Bees to-day are bringing in loads of pollen."

MR. A. I. ROOT has been spending some of his leisure time lately in defending the Weather Bureau that so many like to poke fun at, and in trying to reform the Agricultural Department which is offering prizes for articles on growing tobacco. Mr. Root, why didn't you offer the Department a bee-smoker, to swear off?

MISS FANNIE C. DAMON, of Middlesex Co., Mass., lately sent us 25 cents for the Langstroth Monument Fund. If each bee-keeper in the United States and Canada would contribute 25 cents, it would amount to a very nice sum, and purchase and erect a splendid monument to the great Langstroth—the revered Father of American apiculture.

DR. C. C. MILLER, who has for years so ably conducted the bee-department of the excellent National Stockman and Farmer, has begun to write for it some illustrated articles for beginners in bee-keeping, the first appearing in the number for Dec. 30, and is devoted to the queen-bee. The Doctor can do some good work in that line, and he will.

MR. JOHN G. KNUPPEL, of Kings Co., N. Y., has kindly sent us a photograph of his city apiary, regarding which he wrote Jan. 11:

"We had a very fine crop of both comb and extracted honey the past season, in all 2,000 pounds, which we sell in our own home. The bees are doing nicely so far."

MR. WM. M. WHITNEY, of Geauga Co., Ohio, gave us a pleasant call Jan. 13. He has 28 colonies of bees, and is making quite a success of the business tho he is quite advanced in years, and began only about two years ago. He is doing what he can to get local bee-keepers to study the subject, and to keep their bees in an up-to-date way. Mr. Whitney will likely be heard from later on.

MR. C. THEILMANN, of Wabasha Co., Minn., called on us last week, when in Chicago with a carload of hogs. He had a very poor season with his bees the past year. He secured only about 1,700 pounds of comb honey, and had to feed over 3,000 pounds of sugar to carry his bees through the present winter. He has never had a final settlement with the crooked Chicago commission firm to whom he shipped his 1896 crop of comb honey, some 12,000 pounds. All he has been able to get so far was about one-fourth of its value.

THE POULTRY SHOW OF THE YEAR will be held in Chicago Jan. 24-29, under the auspices of the National Fanciers' Association of Chicago. The Borden Building, 214 East Madison street, has been secured for the purpose, and the number of entries promises to be very large. Every preparation is being made for the care and comfort of the poultry and pet stock when in the showroom. Railways and hotels are convenient, and those who visit the show will find the surroundings pleasant, and the exhibits highly entertaining. The Secretary, W. W. Hogle, 1015 Benson Ave., Evanston, Ill. (a Chicago suburb), will be glad to furnish particulars. The railroads are making special rates for those outside of the city who desire to attend.



The Fence Separator with the no-bee-way section has a stone shield at it in the American Bee-Keeper, and a good word for it in Pacific Bee Journal.

Thin Foundation for Brood-Combs.—The editor of Gleanings thinks thin, but not extra-thin, foundation might be used in the brood-nest in shallow frames well wired.

Bees Gnawing Out Bottom Starters.—W. H. Eagerty complains in Gleanings that when late in the season he gave to the bees sections with nearly full sheets and bottom starters, the bees gnawed away the bottom starters and finished up the combs where the top starters ended.

Triangular Bottom-Bars.—L. L. Skaggs recommends in Southland Queen that bottom-bars be made triangular like the old-fashioned top-bars, the sharp edge or comb-guide being turned up in the bottom-bar. He says they are much stouter than a flat bar of the same weight, and the bees will fasten to them much better.

Bee-Diarrhea is Contagious, as shown by experience. Strengthen with sound bees a colony reduced by diarrhea, and the dying off will steadily continue. Weygandt says the evil is readily communicated from bee to bee if they eat the same food, and especially, as is the case with bees, when the same food is carried from mouth to mouth.—Editor J. B. Kellen in Luxemburg Bztg.

Well-Ripened Honey.—The editor of Gleanings, after describing some honey in such a way as to make one's mouth water, closes up by this sentence, which, by changing "dry room" to "warm dry room" is worth pasting in one's hat: "Any honey, if of good flavor, when allowed to stand in an open vessel in a dry room, will become thick and waxy if given time enough."

The Long-Idea Hive.—G. M. Doolittle having spoken against the long-idea hive, O. O. Poppleton comes to its defence in Gleanings. He thinks it probable that Mr. Doolittle never had a properly-constructed hive of that kind, as neither the Gallup nor the Langstroth frame can be profitably used in that manner; only a deep frame that will allow the brood to remain compact.

Castors for Shipping Comb Honey.—The most dangerous part of shipping honey is the rough handling by freight-hands when shifting to or from the car. J. E. Crane explains in Review that he prevents rough usage by putting castors on each under corner of a box containing 15 or 20 cases. No two-wheeled truck is then used. The expense is perhaps $\frac{1}{2}$ cent for each pound of honey.

Hauling Bees at Night.—In Germany it is a common thing to move bees from one place to another, generally at night, in search of better pasturage. The editor of Centralblatt says that in the region of Hannover the law requires that when hives are thus hauled and are open (it isn't easy to close skeps or straw hives), a lighted lantern must be carried 22 yards in advance of the wagon.

Four-Piece Sections have been almost entirely displaced by one-piece sections, but a return to the four-piece for Californians is advocated in Pacific Bee Journal. It is claimed that with glue, or even without it, they are more rigid and perfect than the one-piece, and give a better effect to the honey, and can be made on the Pacific Coast to compare with Eastern manufacturers, counting the difference in freight.

Fastening Foundation in Brood-Frames.—The A. I. Root Co. has adopted as one of its regular productions a top-bar with a kerf in the underside to receive foundation. The kerf is $\frac{1}{8}$ inch wide and $\frac{1}{4}$ inch deep. Parallel to it is another kerf just like it, with a film of wood $\frac{1}{32}$ thick between the two kerfs. The sheet of foundation is slipped into one kerf which is in the center of the top-bar, then a wedge-shaped strip the length of the underside of the top-bar is forced into

the other kerf, crowding the film of wood hard against the foundation, thus holding it fast. This plan has been in use some years in England, but for some reason has not before been introduced here. A German plan a little like it has been used to some extent here. A single kerf is made in the top-bar, the sheet of foundation is slipped in, then a drop of melted wax here and there from a burning beeswax candle keeps it in place till the bees fasten it.

Empty Comb for Winter Cluster.—While authorities are telling us that bees don't occupy empty cells in winter, and others tell us bees winter best on solid combs of honey, M. A. Wathelet, editor Le Rucher Belge, urges with emphasis that in preparing for winter, care must be taken not to take out center combs that contain little honey to replace them with others better filled, thus dividing by full combs the cluster, and thwarting the bees in the effort they have made to arrange themselves in the best manner possible for the severe season. Where does the truth lie?

Austrian Bee-Keeping.—The central society of bee-keepers in Austria numbered 3,667 members for the year 1896, the report for 1896 being given in Bienen-Vater for December, 1897. These members had 23,344 colonies, or a little more than 6 colonies per member. The average per colony was about 9 pounds of honey and $\frac{1}{2}$ pound of beeswax. Not quite two-thirds of the colonies were in movable-comb hives. Of the 15,468 movable-comb hives, only 91 opened on top, as most hives do in this country; 28 of them opened at the side, 439 at the bottom, and 1,243 at the back.

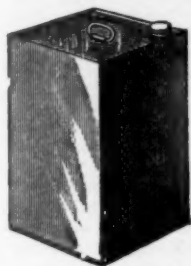
A Machine for Cleaning Sections is described and illustrated in the Review, being the invention of L. A. Aspln-wall. It is especially adapted to clean plain sections, altho it might be used with more or less advantage with the old style. A strong frame-work holds something that looks a little like the relic of a thick grindstone that has been worn down to a very small diameter, and the section is applied to this as it revolves, the surface being such as to rapidly remove all traces of propolis and stain. A rapid motion is given to this grinding surface by means of a larger wheel and belt. A treadle for the foot gives motion to the larger wheel.

Temperature of Brood-Nest in Winter.—It is a somewhat troublesome thing to get at the temperature in the middle of a cluster of bees in winter, as explained by G. M. Doolittle in the American Bee-Keeper. After a good deal of experimenting he settled upon the following: When the mercury stands at zero outside, the temperature in the cluster of bees is 64°, and for every 15° of change from this point (outside), the change in the cluster is 1°. Thus 16° below, gave 63°; zero gave 64°; 15° above gave 65°; while 30° above gave 66° in the cluster. He thinks bees must burn a lot of fuel in the shape of honey or some substitute in a time of severe cold, in order to bring the cluster from below zero up to 63°, and raises the question whether those who are recommending out-door wintering may not be making a mistake that costs a good many dollars.

Curing Foul Brood Without Drugs, shaking off the bees, or any loss of their work, can be done by even a novice, says M. M. Baldrige in Bee-Keepers' Review. Cage the queen and put her in the top of the hive where the bees can have access to her. Bore an inch hole in front of the hive a few inches above the entrance, and toward sunset fasten over the hole outside, a metal bee-escape. Let it stand till next morning. Take from any strong, healthy colony one or two combs of brood, with or without adhering bees, put in an empty hive and fill out with frames of foundation or starters. Any time in the forenoon, or when the bees are getting honey from the flowers, place this prepared hive on the stand of the diseased colony, placing the latter close beside it, but turned end for end, handling it very gently, and leaving the entrance open. Within two or three days nearly all the bees will be in the new hive, when toward sunset the queen is to be taken from the old hive after driving the bees away from the cage with a little smoke, and she is then to be run in at the entrance of the new hive. Gently turn the old hive end for end, and close the entrance. No bee can get out of the old hive except through the escape, and no bees can enter, so all will go to the new hive. In about three weeks all healthy brood will be hatched in the diseased colony, and soon thereafter all the bees will be in the new hive, and no loss of bees or labor. Then dispose of the old hive and contents by burning or otherwise.

See "Bee-Keeper's Guide" offer on page 43.

Only 6 cts. per Pound in 4 Can Lots or Over.



Finest Alfalfa Honey!

IT SELLS ON TASTING.

The Honey that Suits All Who Buy It.

We can furnish **White Alfalfa** Extracted Honey, in 60-pound tin cans, on board cars in Chicago, at these prices: 1 can, in a case, 7 cents per pound; 2 cans in one case, 6½ cents; 4 cans (2 cases) or more, 6 cents. The Cash must accompany each order.

A sample of the honey will be mailed to an intending purchaser, for 8 cents, to cover postage, packing, etc. We guarantee purity.

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that there is in the State. The material is cut from patterns, by machinery, and is absolutely accurate. For Sections, the **clearest and whitest Basswood** is used, and they are polished on both sides. Nearness to Pine and Basswood forests, and possession of mills and factory equip't with best machinery, all combine to enable this firm to furnish the

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The Bee-Keeper's Guide

This 15th and latest edition of Prof. Cook's magnificent book of 460 pages, in neat and substantial cloth binding, we propose to give away to our present subscribers, for the work of getting new subscribers for the American Bee Journal.

A description of the book here is quite unnecessary—it is simply the most complete scientific and practical bee-book published to-day. Fully illustrated, and all written in the most fascinating style. The author is also too well-known to the whole bee-world to require any introduction. No bee-keeper is fully equipped, or his library complete, without "THE BEE-KEEPER'S GUIDE."

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In the multitude of counsellors there is safety.—Prov. 11-14.

Cold and the Secretion of Nectar

Query 67.—Does a light freeze or cold spell just previous to the opening of blossoms seem to prevent the secretion of nectar?—N. C.

E. France—Yes.

Eugene Secor—I believe it does.

Mrs. L. Harrison—I think it does.

J. A. Green—I have not noticed this.

G. M. Doolittle—Not that I ever discovered.

W. G. Larrabee—I think it would be liable to.

Dr. C. C. Miller—I don't know. Hardly think so.

Prof. A. J. Cook—I don't know, but think not.

C. H. Dibbern—I do not know, but I think not.

Chas. Dadant & Son—It surely has a depressing influence.

Dr. J. P. H. Brown—It curtails the secretion very much.

R. L. Taylor—With some kinds of blossoms, but not with all, I think.

Emerson T. Abbott—Not if it does not freeze hard enough to injure the plant.

J. M. Hambaugh—I am not sure on this point. A frost during the bloom I believe to be more injurious.

Jas. A. Stone—I think not, unless it is cold enough to kill the blossoms, providing it is favorable weather after blossoming.

Rev. M. Mahlin—I think not. I know that a light freeze sometimes increases the secretion of nectar after the blossoms are out. This is especially true of cherry-bloom.

J. E. Pond—This is a matter to which I have given no attention, but ordinarily I should not suppose it would affect the matter of secretion unless sufficiently severe to destroy the life of the blossom.

Wm. McEvoy—Yes. I believe that it does check it some. In June, 1888, we had a cold rain followed by a hail-storm just as the clover was beginning to bloom, that checked the flow then. And on the night of May 28, 1889, we had a frost that checked the honey-flow for a long time afterward.

G. W. Demaree—Not if the flowers are uninjured by frost. The condition of the weather at the time when in bloom has much—all—to do with the secretion of nectar in flowers. I have noticed the rather curious fact that the most favorable conditions for the early honey-flow are often reversed in the late (fall) honey-flow.

A. F. Brown—I think not. I remember one year in March, when colonies were gaining two to four pounds per day from orange, when, on the 19th, we had a cold wave, the mercury dropping to 24° two nights in succession; the following days the colonies carried

in 8 to 12 pounds each, and kept it up for several days. This cold damaged the bloom just enough to cause it to secrete nectar very heavily. With bright, fair warm, days following a light freeze, I think in case of some flowers the cold is a benefit rather than otherwise.



Good Average Per Colony.

I have 21 colonies of bees put away for winter, and 2,000 pounds of comb honey was the season's result last summer.

J. H. LOGEMANN.

Worth Co., Iowa, Dec. 17, 1897.

Bee-Management in Washington.

I notice on page 747 items from Chehalis and Lewis counties, Wash. I would like to know how these writers manage their bees. Perhaps they will let us know. It has been a poor season, my average being 53 pounds per colony, two-thirds comb.

HERMAN AHLERS.

Clatsop, Co., Oreg., Dec. 10, 1897.

Good Honey Season.

The past season was a good one for honey in this locality, altho the crop of white honey was quite short, owing to the cold weather nearly all the month of June. My 134 colonies increased to 155, and gave me 9,000 pounds of honey, about 1,100 pounds of it being comb.

A. W. SMITH.

Sullivan Co., N. Y., Dec. 13, 1897.

Electric Swarm Notifier.

I find the American Bee Journal a great help. My bees had a nice flight yesterday. I notice on page 288 an item by J. H. Williamson, saying he would publish the working of his electric swarm notifier, but he has not done so yet. I for one should very much like to hear from him through the Bee Journal.

B. W. HALL.

Merrimack Co., N. H., Dec. 13, 1897.

Bees Did Well the Past Season.

I put 46 colonies of bees into a shed boarded tight on the north and west, with open front to the south, with some boards tacked up to shade them from the sun. I put on empty supers, and a Hill's device of my own make, and filled them with cushions or blankets, old clothing, etc., and packed behind and between with straw. They will be left as they are now till time to put on sections next season. My bees did well the past season. I sold my honey in the home market at 8 $\frac{1}{2}$ and 10 cents; swarms at \$1.25, and colonies this fall at \$3.50.

NOAH MILLER.

Johnson Co., Iowa, Dec. 10, 1897.

Results of the Past Season.

The past season has been about an average one for honey. The yield in many localities in this county has been better than for years, owing, I think, more to the condition of the colonies than to the nectar secreted by the flowers. My reason for thinking so is, that last spring I was unable to attend to my bees "at the right time," on account of illness, resulting from my "experience" in Dixie Land, some 30 years ago, and as a result some colonies stored quite a fine lot of honey, while others did nothing. I believe that if all my colonies had been alike strong, I would have had the best yield I ever had.

I cannot agree with my friend from Somerset county, this State, that bee-keeping

Sweet Clover

And Several Other Clover Seeds.

We have made arrangements so that we can furnish seed of several of the Clovers by freight or express, at the following prices, cash with order:

	5lb	10lb	25lb	50lb
Sweet Clover (white).....	.80	1.00	2.25	4.00
Alsike Clover.....	.70	\$1.25	\$3.00	\$5.75
White Clover.....	.80	1.40	3.00	5.00
Alfalfa Clover.....	.60	1.00	2.25	4.00
Crimson Clover.....	.55	.90	2.00	3.50

Prices subject to market changes.

Add 25 cents to your order, for cartage, if wanted by freight.

Your orders are solicited.

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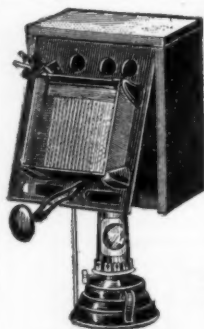
Is now ready for your orders for QUEENS of either 3 or 5 Banded Italians and Steel Gray Carniolans. More than 300 Tested Queens to begin with. Untested, either race, 75 cts. each; June and until October 50 cents each. Tested \$1.00 each. Good Breeders, \$2 each. Straight 5-Banded or "Faultless" Queens, \$5.00 each. Satisfaction guaranteed.

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Have sold in thirteen States. Write me if your supply dealer does not keep them in stock. The best and cheapest yet made. Size 7x8 $\frac{1}{2}$ inches.

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Has No Sag in Brood-Frames

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Being the cleanest is usually worked the quickest of any Foundation made

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BEE-KEEPERS!

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J. M. Jenkins, Wetumpka, Ala.

Please mention Bee Journal when writing.

"don't pay," for our bees have always paid us better (except one year) for labor expended than have our cows, when we sent milk to a cheese factory or made butter at home.

There was less swarming last year than for years, as far as I have heard.

I have sold all my honey in the home market, for 12 cents wholesale for comb honey, and 10 cents for extracted, for white clover.

It doesn't seem possible, but the "Old Reliable" seems to be getting better all the time.

GEO. SPITLER.

Crawford Co., Pa., Dec. 15, 1897.

Bees and the Apple Yield.

We have come to look at the American Bee Journal as a fixture in this household, from oldest to youngest. I have 12 colonies of bees that are on the summer stands, with plenty of stores and a very mild winter so far.

I wish to say to the bee-men that the apple crop was a complete failure in this State, but I have four apple trees that have borne three years in succession. People came here and ask as to the cause; and in fact I was not able to tell the reason until a gentleman from Pennsylvania said it was the blessed bees. Anyway, I got about a dozen barrels of apples, lots of fun, and some honey.

NATHAN A. SLEEPER.

Hillsboro Co., N. H., Dec. 13, 1897.

A Report for 1897.

The first part of the season, in this locality, bees did fairly well, better than an average on fruit-bloom, raspberries and white clover. The honey gathered was very nice.

The last part of the season was unusually good, the best we have had for eight years. Golden-rod yielded abundantly. The honey from it was good, milder in flavor than usual.

The close of the honey season left my bees in good condition for winter. This is the first season for years that I have not had to feed more or less for winter stores.

As usual I reduced the number of my colonies by uniting about one-third. They are now in winter quarters on the summer stands, with outer cases over the hives.

J. P. SMITH.

Sullivan Co., N. H., Dec. 14, 1897.

Not A Good Honey Season.

I have had my bees nearly two years. This has not been a very good season for honey, only receiving about 80 pounds from the strongest colony, while the others did not do much of anything. A year ago last spring I started with two colonies, and now have but 10. I started with five colonies last spring. One colony cast a good prime swarm, and in about six days they cast another heavy swarm; the next day still another, and I lookt through the hive and found four more queens. I took out three queens, so they did not swarm any more, and were in good condition when I put them away for winter.

A. G. TOWERS.

Polk Co., Wis., Dec. 26, 1897.

Bee-Keeping of Ancient Egyptians.

We have before now seen accounts of migrating apiaries. Writers tell us that the season in Upper Egypt is some six weeks earlier than in Lower Egypt along the coast. Maillet tells us the ancient Egyptians were well aware of this. He says there was an abundance of bees and honey in that country, and that it was the custom of that ancient people, each year, about the first of October, to send their hives from all parts of the country into Upper Egypt, where they were placed on boats, numbered and registered. As the waters of the Nile subsided after the inundation, the flora in that hot country came on rapidly. The bees were allowed to remain a few days, until it was thought they had foraged about all they could, when they were moved

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REID'S NURSERIES, Bridgeport, Ohio.

THE PROGRESSIVE BEE-KEEPER

Is a 28-page monthly bee-journal published at Higginsville, Mo.—price 50 cts. a year. With the year of 1898, we begin the eighth volume, hence it is past the experimental stage. **R. B. Leahy** and **G. M. Doolittle**, editors. Some of the features of 1898 will be a continuation of "Wayside Fragments," by **Somnambulist**. "Experience and Its Lessons," by **R. C. Aikin**. This series of articles will be reviewed by Mr. Doolittle, which is practically giving his experience with its lessons. "Experience and Its Lessons," as reviewed, will be a gold-mine for beginners and advantageous to those more advanced in bee-culture. The somnambulist articles are written in a pleasing style, as none but "Sommy" could write them. They are highly entertaining and instructive. **Dr. C. C. Miller** and other popular writers also contribute to its columns. The PROGRESSIVE is a popular journal at a popular price. Printed in the highest art, on beautiful paper. Fearless in its character, newsy in its contents, and artistic in its make-up. Remember the PROGRESSIVE BEE-KEEPER is but 50c. a year. The PROGRESSIVE and that "one only" book for beginners, the **Amateur Bee-Keeper**, by **Prof. J. W. Rouse**, both for 65c. A sample copy of the PROGRESSIVE for your name, and a beautiful, illustrated catalog of apian supplies for the asking. Address,

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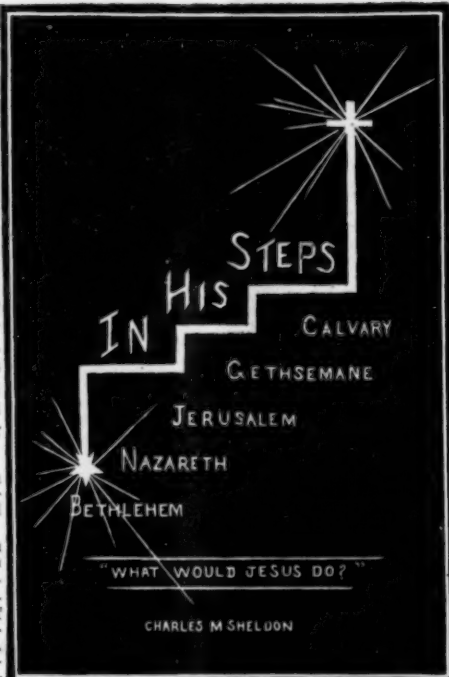
This Very Remarkable Social Story,

The thought of which is the application to all life of the test question, "What would Jesus do?" has had an extraordinary sale, even during the "dull times" of summer. In the guise of a dramatic story, the book makes a powerful appeal to the public conscience in the lines in which interest is now so deeply aroused, namely, the social conditions affecting the relations of employer and employee, rich and poor, the Christian and the world, the saloon and the voter, etc. The author believes his test—"What would Jesus do?"—to be nothing less than revolutionary, and applies it with searching directness, not only to commercial and social, but also to religious life. The deep interest which the story has awakened is indicated by the thousands that have been sold, and the many voluntary testimonials, among them being the following:

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a few leagues down the stream, and another stop of a few days made, and then another move, until the coast was reached, about Feb. 1. Thus going, their bees had the advantage of the best bee-pasturage the kingdom afforded, the whole length of the river country.

As to their hives: Hasselquist tells us they were cheaply made of clay, about 4 feet long and half a foot in diameter—curious hives, we would think, but perhaps not more unique or less practical than many receptacles our bees pre-empt in stumps, trees, logs, etc.

I wonder what those postdeluvians would think, could they now take lessons of Doolittle, Miller, Root, and others.

Indeed, I wonder what they'd say To see bee-keeping in our day: Methinks they'd open wide their eyes, To see our hives, frames, and bee-supplies. Some stories big at home relate, How bee-men here manipulate The hives, frames, combs and bees, And anything just as they please, And think success is fairly won As honey comes in by the ton, While Miller's face would light with smiles, To think of living in new tiles: They'd think they knew but little of the bee— But, then, they never had Root's "A B C."

Will Co., Ill., Dec. 13. A. W. HURT.

Bees in Good Condition.

I have 115 colonies of bees in winter quarters in good condition. In 1897 I got half a crop of honey.

Scott Co., Iowa, Jan. 8. E. R. WRIGHT.

Bees Did Poorly.

Bees did very poorly here this year, altho Alsike was abundant, but there was very little seed in it, making a double loss.

Ontario, Canada. M. G. WILLIAMS.

Results of the Season of 1897.

I had 30 colonies the past season, that I workt mostly for extracted honey, and got 3,700 pounds, but no increase in bees.

Clinton Co., Iowa, Jan. 1. J. E. CAMPBELL.

In Good Condition for Winter.

I had 30 colonies, spring count, increast to 60. I got 1,500 pounds of comb honey from white clover, last season. I got no fall honey. My bees are in good condition for the winter.

Caldwell Co., Mo., Jan. 1. JOHN N. MICHAEL.

Was Successful with Bees.

I was successful with my bees last summer. I harvested about 1,500 pounds of comb and extracted honey. The market here is very low and dull.

Bureau Co., Ill., Dec. 27. JULIUS HERMANN.

Bees in Good Condition,

I have 5 colonies of Italian bees in the cellar, and in good condition. I am looking forward with great hopes for the next season with them. I love to work with the bees. I can't do without the "Old Reliable."

Neosho Co., Kans., Dec. 29. A. G. FREEMAN.

Not Enough Flowers for the Bees.

My honey crop actually will not pay the subscription price of the Bee Journal. True, I had only five colonies, but I did expect some little remuneration, for the care that I gave them. This is my third year with bees, and it seems the more experience the less honey, but I think I know what's the matter—too many bees and not enough flowers!

I use full sheets of foundation on wired frames, in good hives (Hilton's) sheltered from the noonday sun, and still no honey. Screw loose somewhere. May be I'll find it after awhile. I have "A B C of Bee-Cul-

ture." "Bees and Honey," several copies of the Review, and, last but not least, the American Bee Journal; and if my renewal one year hence is not in on time, you can attribute it to the fact that it is another of my "off" years again.

L. F. CHURCHILL.
Cheboygan Co., Mich., Dec. 15.

The Bee-Keeper Won.

I would like to let you know how the bee-case or fight came out. I would refer you to pages 494 and 495 (1897) for further details. Well, my neighbor had to return the bees and pay the costs.

AUGUST BACHMANN.
King Co., Wash., Dec. 28.

Not a Good Honey-Flow.

I like the American Bee Journal first-rate, and could not do without it. I started with two colonies of bees four years ago, and have 15 colonies now. I put 11 into the cellar, and 4 on winter stands. The honey-flow was not very good. I got only 460 pounds last fall.

R. H. BERGFELD.
Hardin Co., Iowa, Dec. 30.

Bees Did Well.

Bees did very well here the past season. I harvested 2,500 pounds of comb honey and 500 pounds of extracted of very fine quality, from 48 colonies, spring count, and and increased to 77 colonies, with plenty of honey to winter on. I attribute my success to the American Bee Journal, and could not keep bees without it.

Nemaha Co., Kans. A. W. SWAN.

Stored Honey of Fine Quality.

Bees did well here last season, and the honey stored was of a fine quality. The fall forage was good, tho I expect it was injured and cut short by the drouth of autumn. Bees seem to be wintering quite well so far. Have had but few days at a time of real cold weather here yet, with but little snow, the first coming Dec. 2.

FRED S. THORINGTON.
Livingston Co., Mo., Dec. 16.

Report for the Past Season.

I began the season of 1897 with 60 colonies, and have 80 now. They averaged 25 pounds of honey per colony, mostly comb. The forepart of the season started out grand, but by July 10 the honey-flow broke off all at once, everything dried up, and there was no more honey after that to speak of, altho bees are in good condition. I hope for a better season in 1898.

A. WICHERTS.
Cook Co., Ill., Dec. 17.

Appreciates the Bee Journal.

The American Bee Journal has been a close and constant friend ever since its birth, and I have watcht its development and growth, as it has made its regular visits weekly for so many years, and should it from any cause stop during my life, I should be very lonely without its visits.

My lawsuit is set for the January court. I will report later in regard to it.

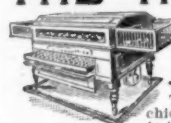
H. BESSE, M. D.
Delaware Co., Ohio, Dec. 31.

Hogs Eat Sweet Clover.

The sweet clover seed I got last spring grew all right, and at the present writing it is green. They need not tell me that stock will not eat it, for I cannot keep our pigs off of it, as it is not fenced. We sowed white clover last spring, and if I get the Simpson honey-plant started, don't tell me I will not have any surplus honey.

I think this is a good location. We are near the Republican river, where abound cottonwood, sumac, prickly-ash, box-elder, grape-vines, golden-rod, smart-weed, and

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Bee-Keeper's Guide—see page 43.

any amount of wild flowers that I do not know the names of.

I am very much interested in bees. The Bee Journal is a great help to me. There are so many things a beginner wants to know, and the Bee Journal is the place to find almost any question answered, that you want to ask about bees.

I began last spring with two colonies, increased by natural swarming to six, got 85 pounds of comb honey in one-pound sections, and they all have plenty of winter stores. They have been out for a play-spell at three different dates in this month—Dec. 6, 7 and 8.

I am experimenting a little in wintering my bees; if they winter all right you may hear from me again.

MRS. LIZZIE IRELAND.
Republic Co., Kans., Dec. 15.

Managed a Number of Apiaries.

I have managed alone over 20 small apiaries, starting with 144 colonies, spring count, and increased to over 300, and but 2 swarms. I got 1,371 one-pound sections filled from one divided colony. The Bee Journal has been a great help to me.

THOS. CHANTRY.
Clay Co., S. Dak., Dec. 28.

Bee Journal Likely to Cause Trouble.

I am well pleased with the Bee Journal. It is full of reliable news, and comes regularly, but I am afraid it will cause me trouble, as there is a dispute as to who shall read it first, wife or I, as she has taken great interest in the bee-business.

Los Angeles Co., Calif. J. H. MILLER.

Results of the Poor Season.

I have about 20 colonies of bees that were put into winter in good condition. They produced between 1,000 and 1,100 pounds of comb honey, which sold at 15 cents a pound. About all is sold. I am nearly 66 years old, and have kept bees 19 years. I produce altogether comb honey, and use the Langstroth hive. I have tried many other hives, but for easy handling, and all other purposes, it is ahead of any other I know of. I have taken the Bee Journal about 11 or 12 years, and could not get along without it and keep bees. Bee-keeping here is away back, say 40 years.

ALEXANDER ROSE.
Shelby Co., Ill., Jan. 1.

Selling Honey at Home.

My honey crop has been this year, the summer and fall supply, 600 pounds from seven colonies. The light honey sold readily for 12½ cents, and 10 cents for dark. All pronounced it fine. Have sold it all, and there has been a call for more. All was sold in the home market. I have no trouble in selling my honey, as it goes on the market clean and all in good shape. Some so-called bee-men will bring their honey to market just as it is taken from the hive, and not being able to get a good

price for it, will sell at a reduction. Then the people say, "Well, your honey looks nice, but Mr. So-and-so sells his for much less than you do"—which means at 6 or 7 cents, when, if they had any pride in the good work, they would clean their honey up in good shape, and get as good price as any one. I am very proud of my small apiary, but wish to have more experience.

CHAS. A. BILLINGS.

Wayne Co., N. Y., Dec. 28.

Please Send Us the Names of your neighbors who keep bees, and we will send them sample copies of the BEE JOURNAL. Then please call upon them and get them to subscribe with you, and secure some of the premiums we offer.

New York.—The Ontario County, N. Y., Bee-Keepers' Association will hold its ninth annual convention at Canandaigua, N. Y., Jan. 27 and 28, 1898. An interesting program is in course of preparation. All are invited.

RUTH E. TAYLOR, Sec.

Bellona, N. Y.

The Successful Incubator.—We have before us the new catalogue of the Successful Incubator Co., Des Moines, Iowa. These people have been advertisers in our columns for several years past, and we presume that many of our readers now own and operate the Successful machines. So far as we are able to ascertain, the results of this machine in actual operation are such as to give a hearty endorsement of the same. We see by reference to the annual catalogue that the manufacturers' guarantee is such as to leave very little to be desired. If there is any point of construction, material and actual incubating ability that is not completely covered by the guarantee, we fail to discover it. By the way, this 130-page catalogue is crowded with good things that ought to be in the hands of every man or woman who is interested in poultry in any way. It is a handsome and valuable book, and worth many times more than they ask for it. Send along 6 cts. in postage stamps and secure it before another day passes. It will repay you handsomely. When writing them, please say you saw their advertisement in the American Bee Journal.

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HONEY and BEESWAX

MARKET QUOTATIONS.

Chicago, Ill., Dec. 13.—Fancy white 11 to 12c; No. 1, 10c; fancy amber, 8 to 9c; No. 1, 7c; fancy dark, 7c. Extracted, white, 5 to 6c; amber, 4 to 5c; dark, 4c. Beeswax, 26 to 27c.

The demand for comb honey is not satisfactory, and it can be bought at even lower prices than quoted, where it is not in the hands of regular dealers. There seems to be no outside demand. Extracted without special change. Beeswax is scarce.

Milwaukee, Wis., Dec. 13.—Fancy white, 12 to 13c; No. 1, 11 to 12c; fancy amber, 9 to 10c; fancy dark, 8 to 9c. Extracted, white, 5½ to 6c; amber, 4½ to 5c. Beeswax, 25 to 27c.

This market has been fairly sustained on honey since our last report. Values remain about the same, as there has been a very good consumptive demand, especially for extracted, while the comb honey has seemed to accumulate with increased receipts, and we feel to meet the demand even if at a reduction from quotations. There seems to be more demand from those who eat honey than in former seasons, which is a good feature of the trade which we desire to encourage. We are expecting a good trade from this forward.

Cleveland, Ohio, Dec. 15.—Fancy white, 12 to 12½c; No. 1, 11 to 12c; No. 1 amber, 9 to 10c. Extracted, white, 6 to 7c; amber, 4 to 5c. Beeswax, 22 to 25c.

New York, N. Y., Dec. 22.—Fancy white 11 to 11½c; off grades, 9 to 10c; buckwheat and mixt, 6½ to 7c. Extracted, California white, 5 to 5½c; light amber, 4½ to 4¾c; white clover and basswood, 5 to 5½c; buckwheat, 4 to 4½c; Southern, 50c. a gallon. Beeswax is in good demand at 25 to 27c.

Our market remains quiet. Fancy grades of white comb are about cleaned up, and these would find sale on arrival at quotations. We have a large stock of buckwheat, mixt, and off grades of white, and as the demand for these is very light, we cannot encourage further shipments for the near future. Extracted of all kinds is selling fairly well.

Minneapolis, Minn., Dec. 15.—Fancy white, 11 to 12c; No. 1, 10 to 11c; fancy amber, 10c; No. 1, 9½c; fancy dark 9 to 9½c; No. 1, 8 to 9c. Extracted, white, 5 to 6c; amber, 4 to 4½c; dark, 4c. Beeswax, 23c.

Market holds firm at above prices. Good demand for extracted. Wax is quiet but firm at 23c.

Kansas City, Mo., Dec. 15.—Fancy white, 10½ to 11c; No. 1, 10 to 10½c; fancy amber, 9½ to 10c; No. 1, 9 to 9½c; fancy dark, 8½ to 9c. Extracted, white, 5½ to 6c; amber, 5 to 5½c; dark, 4 to 4½c. Beeswax, 20 to 22c.

St. Louis, Mo., Dec. 13.—Fancy white, 12 to 12½c; No. 1, 10½ to 11½c; fancy amber, 9½ to 10c; No. 1, 9c; fancy dark, 8c. Extracted, white, 5 to 5½c; amber, 4 to 4½c; dark, 3½ to 4c. Beeswax, 24½ to 25c.

We would advise prompt shipments of honey. We do not see any probabilities of better prices. The stock of honey is ample for the demand.

Albany, N. Y., Dec. 13.—Fancy white, 12 to 13c; No. 1, 11 to 12c; fancy amber, 8 to 9c; No. 1, 8c; fancy dark, 8c; No. 1, 7½ to 8c. Extracted, white, 5 to 6c; amber, 4½ to 5c; dark, 4 to 4½c.

There is an ample stock of comb on hand and selling freely at quotations. Extracted is not plentiful and from information received there is not much in the hands of producers.

Buffalo, N. Y., Jan. 14.—Strictly fancy 1-pound comb honey is more active at mostly 10c, occasionally 11c, but all other grades are dormant and have to be cut to almost any price to move them, ranging from 8c. down to 5c. Extracted is also very dull at 4 to 6c. We cannot recommend the shipping of honey here unless it is strictly fancy 1-pound sections.

There is no selling pressure of consequence on desirable lots of water white, either comb or extracted, such being held as a rule at full quotations. Amber grades are in greater supply than the demand, and market for this class presents an easy tone. Dark qualities are in poor request, despite low asking figures. Beeswax is firm at current quotations, with very little offering, either from first or second hands.

Philadelphia, Pa., Nov. 13.—Fancy white 13 to 14c; No. 1, 12c; fancy amber, 10c; No. 1, 9c; No. 1 dark, 8c. Extracted, white, 5 to 5½c; amber, 5c; dark, 4 to 4½c. Beeswax, 27c.

Honey is arriving very freely; market is a little off. Beeswax is in good demand.

Boston, Mass., Nov. 8.—Fancy white, in cartons, 13c; No. 1, 11 to 12c; fancy amber, 10c. Extracted, white, 6 to 7c; amber, 5 to 5½c. Beeswax, 28c.

No. 1 and fancy honey has sold well during the past 10 days, but off grades and light weight is going slowly. Beeswax is in good demand and but little here.

Detroit, Mich., Nov. 9.—Fancy white, 11 to 12c; No. 1, 10 to 11c; fancy amber, 9 to 10c; No. 1, 8 to 9c; fancy dark, 7 to 8c. Extracted, white, 5 to 6c; amber, 4 to 5c. Beeswax, 25 to 26c.

Indianapolis, Ind., Jan. 15.—Fancy white, 11 to 13c; No. 1, 10 to 11c; fancy amber, 9 to 10c. Extracted, white, 5 to 6c. Beeswax, 25 to 27c. Market appears to be well supplied and sales are rather slow for this time of the year. This is especially true of the amber and dark grades of comb honey. Beeswax is in good demand.

Cincinnati, Ohio, Jan. 8.—There is no change in prices, but rather a slow demand for all kinds of honey. We quote 10 to 13c, as the range of prices for best white comb honey, and 3½ to 6c, for extracted, according to quality. Beeswax is in fair demand at 20 to 25c, for good to choice yellow. Cincinnati is no place for dark comb honey.

List of Honey and Beeswax Dealers.

Most of whom Quote in this Journal.

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HILDRETH BROS. & SORLKEN,
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Kansas City, Mo.

C. C. CLEMOMS & Co., 423 Walnut St.

Buffalo, N. Y.

BATTERSON & Co., 167 & 169 Scott St.

Hamilton, Ills.

CHAS. DADANT & SON.

Cleveland, Ohio.

A. B. WILLIAMS & Co., 80 & 82 Broadway.

Philadelphia, Pa.

WM. A. SELSER, 10 Vine St.
Mr. Selser handles no honey on commission

St. Louis, Mo.

WESTCOTT COM. CO., 213 Market St

Minneapolis, Minn.

S. H. HALL & CO.

Milwaukee, Wis.

A. V. BISHOP & CO.

Boston, Mass.

BLAKE, SCOTT & LEE, 57 Chatham Street.

Detroit, Mich.

M. H. HUNT, Bell Branch, Wayne Co., Mich.

Indianapolis, Ind.

WALTER S. POWDER, 162 Massachusetts Ave.

Albany, N. Y.

CHAS. McCULLOCH & Co., 380 Broadway.

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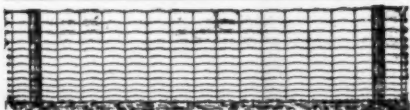
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GUS DITTMER,
AUGUSTA, WIS.

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